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Environmental Assessment

Misery Lake Timber and Fuels Management Projects

Newport-Sullivan Lake Ranger Districts
Colville National Forest
Pend Oreille County
Washington

A Healthy Forest Restoration Act Project

ENVIRONMENTAL ASSESSMENT

Misery Lake Timber and Fuels Management Projects

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ABSTRACT:

The approved alternative of the Final Environmental Impact Statement, Land and Resource Management Plan, Colville National Forest (December 29, 1988), including Regional Forester's Forest Plan Amendment No. 2, and the Inland Native Fish Strategy (INFISH) Environmental Assessment (EA), establishes Forest Management Direction for the Colville National Forest in the form of Goals and Objectives. This project, if approved, would meet some of these Goals and Objectives. This project is an Authorized Hazardous Fuels Reduction Project in accordance with the Healthy Forest Restoration Act (HFRA). The project focuses on hazardous fuels reduction, improving forest health, and vegetative restoration. This project is designed to address the intents of the Cohesive Strategy and the HFRA by reducing hazardous fuel levels on National Forest lands near the community of Blueslide. Blueslide was identified as a community at risk in the Wildland Urban Interface Communities Within the Vicinity of Federal Lands That are at High Risk From Wildfire, (Federal Register, 2001), by the Pend Oreille County Community Wildfire Protection Plan. The Pend Oreille County Community Wildfire Protection Plan identified Blueslide as a community at risk based on guidance found in *Handbook for Wildland–Urban Interface Communities, Preparing a Community Wildfire Protection Plan* (March 2004). Two alternatives were developed including a no action alternative.

Alternatives:

A. This alternative is a "no action" alternative; however, present planned management activities would continue.

B. This alternative meets the goals of the Pend Oreille County Wildland-Urban Interface Wildfire Mitigation Plan by managing National Forest lands adjacent to the communities around Blue Slide and along the Bonneville Power Administration power line to reduce the area of WUI

land burned and losses experienced because of wildfires where these fires threaten communities in the wildland-urban interface and prioritize the protection of people, structures, infrastructure, and ecosystems that contribute to their way of life and the sustainability of the local and regional economy. This alternative would treat approximately 6,624 acres with prescribed fire and mechanical fuel treatments. Alternative B also meets the multiple-use objectives of the Forest Plan, Regional Forester's Forest Plan Amendment No. 2, and INFISH EA by achieving silvicultural goals through commercial (timber harvest) and noncommercial (including prescribed fire) vegetation management. This alternative would treat about 2,815 acres using vegetation management tools, including about 643 acres of regeneration timber harvest. Alternative B builds approximately 4.8 miles of new road, and decommissions about 8 miles of existing roads. The change in open roads would be a net decrease of 3.2 miles of National Forest System roads.

List of Acronyms

AIRFA	American Indian Religious Freedom Act
BE	Biological Evaluation (plants, fish, wildlife)
BMP	Best Management Practice (water)
BPA	Bonneville Power Administration
BPE	Biophysical Environment (vegetation)
CCF	Hundred cubic feet (timber volume)
CFR	Code of Federal Regulations
CR	County Road
CT	Refers to standard provisions in the Forest Service timber sale contract
CTL	Cut-to-length (a mechanized logging system)
DBH	Diameter breast height (a method of describing a tree's size)
EA	Environmental Assessment
FEIS	Final Environmental Impact Statement
FM	Fuel Model
FOFEM	First Order Fire Effects Model (air quality)
FPA	Forest Practice Applications (WA state land)
FR	Forest Road
FRCC	Fire Regime Condition Class
FSM	Forest Service Manual
FY	Fiscal Year
GIS	Geographic Information System (computerized mapping and analysis software)
HFRA	Healthy Forest Restoration Act of 2003
HRV	Historic Range of Variability (vegetation)
ICBEMP	Interior Columbia Basin Ecosystem Management Project
ID or IDT	Interdisciplinary Team
INFISH	Inland Native Fish Strategy (fish)
KV	Knutson-Vandenberg Act of 1930 (money collected from timber sale purchasers to conduct certain kinds of improvement work in timber sale areas)
LRMP	Land and Resources Management Plan also known as the Forest Plan
MA	Forest Plan management area
MIS	Management Indicator Species (wildlife)
MMBF	Million board feet (timber volume)
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NFS	National Forest System
NRHP	National Register of Historic Places (heritage)
OHV	Off-highway Vehicle
PM	Particulate Matter (air quality)
PNV	Present Net Value (economics)
PQA	Product Quality Adjustment (financial analysis)
RHCA	Riparian Habitat Conservation Area (fish)
RMO	Riparian Management Objective (fish)
ROS	Recreation Opportunity Spectrum (recreation)
SHPO	State Historic Preservation Office (cultural resources)
SUP	Special Use Permit
TEA	Transactional Evidence Appraisal (financial analysis)
TES	Threatened, Endangered and Sensitive (wildlife, plants)
TMDL	Total Maximum Daily Load (hydrology)
TSC	Timber Sale Contract
USAF	United States Air Force
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service (wildlife)
VQO	Visual Quality Objective (scenery)
WADNR	WA State Department of Natural Resources
WUI	Wildland Urban Interface (fire)

Definitions

Commercial thinning	The removal of a portion of the trees in even-aged or uneven-aged stands to control stand spacing and favor desired trees. The objectives are to remove trees that exhibit poor form, vigor, or pose a significant risk of insect or disease mortality; reduce competition; and to increase growing space for the development of large trees. A fully stocked stand with 40+ residual trees larger than 6” in diameter would result from this treatment.
Commercial thin/shelterwood	The stands would be a mix of commercial thinning and shelterwood. Portions of the stand that are stagnant and would not readily move towards a late structural stage without regenerating the area would receive a shelterwood harvest. The remainder of the stand would be thinned. Within the Misery Lake project area, those areas proposed for shelterwood harvest are primarily lodgepole pine pockets that would not respond to a release (thinning) treatment.
Selection harvest	Selection of individual trees or small groups of trees to retain a stand with high forest cover while simultaneously providing for an orderly development of trees with a range of ages. Generally uneven-aged management. The result of this treatment is a fully stocked stand that exhibits a variety of stocking and may have small openings created where a new crop of seedlings will become established.
Selection harvest/shelterwood	The stands would receive a mix of selection and shelterwood harvest. Portions of the stand that are stagnant and would not readily move towards a late structural stage without regenerating the area would receive a shelterwood harvest. The remainder of the stand would be treated through selection harvest. Within the Misery Lake project area, those areas proposed for shelterwood harvest are primarily lodgepole pine pockets that would not respond to a release (thinning) treatment.
Shelterwood regeneration harvest	All trees would be harvested except those needed for seed, wildlife, and shelter for the stand-to-be. Residual stand retains 12-30+ trees/acre in the overstory. Generally, the largest trees available would be left as green-tree replacements for snags. This prescription is mostly used on dense, stagnant stands to produce a new stand of early seral species (seedlings) capable of growing toward late structural stage.
Precommercial thinning	Treatment in plantations that do not have enough commercial value to treat with a harvest prescription, but would benefit by thinning out small-diameter trees, allowing residual trees to grow and increasing overall stand vigor. Cut trees would be bucked,

	lopped, and scattered on the site. Generally the stands would be thinned on a 12 feet by 12 feet spacing where topography and economics would allow for a future commercial thinning in 20 to 40 years. In stands that a future commercial thin is not considered to be economically feasible then the average PCT spacing should be increased to approximately 14ft by 14ft. A mix of different species including hardwoods is preferred after treatment with a priority on leaving the healthiest trees with greater than 40% live crown ratios and removing trees with damage or disease evident.
Fuels/fire	A method to reduce fuel loadings to historic conditions. Treatments may include mechanical thinning from below and fuel breaks. The mechanical treatments are designed to prepare the sites for prescribed fire.
Underburn	A method of reintroducing fire on the landscape. This treatment will help reduce fuel loadings to historic conditions. Underburning will help reduce undesirable competing vegetation, including conifers and brush. Also a benefit of underburning will be to make browse species more palatable to big game by stimulating new sprouts. Underburning will also help in raising the lower crown height by reducing the lower live limbs, resulting in a lowered risk of surface or ground fires climbing into the crown of trees. **Jackpot burning** is a type of underburn designed to consume concentrations of forest fuels.
Mechanical fuel	These treatments are being done in commercial treatment stands to reduce fuels to historic conditions and create planting spots for regeneration. Treatments may include machine/grapple piling, noncommercial tree felling, and hand piling. Mechanical fuel treatments may also prepare the stands for future underburning, or where prescribed fire will likely result in losses to the residual overstory.
Mastication	Mastication is the process of grinding, shredding, or chopping surface and ladder fuel residue. This treatment can lower fuel bed depth, raise crown base height, and increase fuel-ground contact to promote decomposition. Mastication can be used in lieu of prescribed fire—either due to risk of escape, smoke concerns, or other management constraints.
Machine/Grapple Piling	The piling of slash in a harvest unit using a machine with a grapple arm for picking up slash. Slash is piled in open areas for burning when snow cover is sufficient to prevent fire spread. Allows for the burning of slash in a more controlled environment.

White Pine pruning	Treatment in plantations to reduce the risk of White Pine blister rust infection in the white pine saplings. Pruning would be done by hand using saws or pruning shears to remove the lower portion of the crown, generally up to 4.5+ feet high. This lower portion of the live crown has been found to have the highest infection risk.
Planting	Artificial reforestation to regenerate a stand or interplant with natural regeneration. Planting would reintroduce species that may be absent or lacking in the stand due to past disturbances. Planting allows the FS to plant a 1 to 3 year old seedling on the site to help overcome the competition of brush or grasses. Planting helps to rapidly re-establish the next stand and move it towards the desired future condition. Relying on only natural regeneration can often be difficult and unsuccessful in re-establishing the desired mix of species on the site.

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